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UNITED STATES DISTRICT COURT

DISTRICT OF OREGON

EUGENE DIVISION

CENTER FOR BIOLOGICAL DIVERSITY, Plaintiff, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency; CHRIS HLADICK, Region 10 Administrator, United States Environmental Protection Agency, Defendants.	Case No. **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF** Clean Water Act (33 U.S.C. §§ 1251, *et seq.*)

INTRODUCTION

1. Oregon's coastal waters are experiencing a dramatic water quality problem. As the ocean absorbs carbon dioxide emissions from the atmosphere, the carbon dioxide reacts with

seawater, lowering the ocean's pH and making it more acidic. In addition, land-based pollution in the form of nutrient runoff and other local sources increases acidity. This process is called "ocean acidification."

2. Ocean acidification strips seawater of calcium carbonate, an essential building block for marine organisms that build shells. Consequently, shellfish in Oregon have experienced a dramatic collapse in production. Beginning in 2005, billions of oyster larvae have perished in the Pacific Northwest hatcheries that rely on the region's seawater, with some hatcheries losing up to 80 percent of their larvae. Scientists have definitively linked the oyster production problems in hatcheries to ocean acidification.

3. Documented changes in water chemistry and shellfish production declines in Oregon signal a serious water quality problem.

4. The Clean Water Act, the nation's strongest law protecting water quality, aims to halt water pollution and protect the beneficial uses of water bodies. Toward those goals, Section 303(d) of the Clean Water Act requires each state to identify any water bodies that fail to meet the state's water quality standards and list those bodies as "impaired" waters. 33 U.S.C. § 1313(d).

5. The state must then submit its 303(d) list of impaired waters (a "303(d) list") to the Environmental Protection Agency ("EPA"), and EPA must either approve the list if it meets the requirements of the law or disapprove the list. 33 U.S.C. § 1313(d)(2); 40 C.F.R. § 130.7(d)(2). If EPA disapproves the list, Section 303(d) requires that EPA identify any impaired water bodies omitted from a state's list within thirty days. 33 U.S.C. § 1313(d)(2).

6. A state's list of impaired water bodies serves several purposes. Primarily, for each water on the list, the state must identify the pollutant causing the impairment, when known, and

then develop a plan to improve water quality for the impaired water body based on the severity of the pollution and the sensitivity of the water's use. 40 C.F.R. § 130.7(b)(4).

7. States are required to submit 303(d) lists every two years. The mandated thirty-day time limit imposed on EPA to identify impaired waters after disapproval ensures impaired waters are promptly included on the state's list before the next listing cycle begins.

8. Despite available scientific data and information on ocean acidification and its harmful impact on Oregon's marine waters, the Oregon Department of Environmental Quality ("DEQ") failed to include any marine waters impaired due to ocean acidification on its 2012 303(d) list. The state submitted its impaired waters list to EPA on November 5, 2014.

9. More than two years after DEQ's submission of Oregon's 2012 303(d) list, EPA partially approved and partially disapproved the list. EPA partially disapproved the list due to DEQ's failure to list 332 impaired water bodies. EPA proposed to add these 332 segments to Oregon's 303(d) list because data indicate that these water bodies are not attaining water quality standards.

10. In its partial disapproval, EPA solicited data and information on ocean acidification impacts to marine waters in Oregon. EPA described the numerous lab and field studies that show impacts to shellfish and other marine life under corrosive conditions and acknowledged that data conclusively demonstrated corrosive conditions off the Oregon coast.

11. EPA is legally required to finalize its rulemaking and identify any of Oregon's marine waters impaired by ocean acidification. But EPA has failed to do so.

12. Accordingly, Plaintiff seeks a declaration that EPA's failure to identify impaired waters in Oregon within thirty days of EPA's disapproval of Oregon's 2012 303(d) list violates EPA's mandatory duty under Section 303 of the Clean Water Act, 33 U.S.C. § 1313(d)(2), and

constitutes an agency action unlawfully withheld or unreasonable delayed under the Administrative Procedure Act, 5 U.S.C. § 706(1). Plaintiff also seeks an order requiring EPA to promptly identify and finalize its rulemaking to add additional impaired waters, including those due to ocean acidification, to Oregon's 2012 303(d) list.

JURISDICTION AND VENUE

13. This Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 (federal question), 33 U.S.C. § 1365(a)(2) (Clean Water Act), and 5 U.S.C. §§ 702–03 (Administrative Procedure Act). The requested relief is authorized by 33 U.S.C. § 1365(a), and by 5 U.S.C. §§ 551(13) and 706(1).

14. As required by the Clean Water Act, 33 U.S.C. § 1365(b)(2), Plaintiff provided Defendants with notice of their intent to sue over the violations of law alleged in this Complaint more than sixty days ago. Defendants have not remedied these violations of law.

15. Venue is properly vested in this Court pursuant to 28 U.S.C. § 1391(e)(1) because the violations alleged in this Complaint are affecting ocean waters in this judicial district.

PARTIES

16. Plaintiff the Center for Biological Diversity ("the Center") is a nonprofit corporation dedicated to the preservation of biodiversity, native species, and ecosystems. The Center's Oceans Program focuses specifically on conserving marine ecosystems, and seeks to ensure that imperiled species are properly protected from destructive practices in our oceans. In pursuit of this mission, the Center has worked extensively to protect ocean ecosystems in Oregon and nationwide from various threats including ocean acidification. The Center has engaged in efforts to protect endangered marine species threatened by ocean acidification such as oysters in Oregon and Washington, black abalone in California, and corals in Florida and Hawaii.

17. The Center currently has more than 68,000 members, many of whom live in Oregon. Center members and staff live in and regularly visit the Pacific Northwest's coastal and marine areas, including the waters at issue in this case. Center members regularly use Oregon's ocean and coastal areas for research, aesthetic enjoyment, observation, fishing, harvesting shellfish, and other recreational, scientific, and educational activities and intend to continue doing so in the future. The maintenance of a healthy marine ecosystem and water quality is important to the Center's members' interests.

18. Center members and staff also regularly research, observe, photograph, enjoy habitat, and seek protection for numerous marine species that are affected by ocean acidification in Oregon, including abalone, mussels, clams, oysters, and other shellfish. Center members and staff also regularly view and use the habitat of other marine animals such as salmon, sea otters, and whales that are affected by the ecosystem changes, including prey availability, caused by ocean acidification. Center members and staff derive aesthetic, scientific, recreation, conservation, and other benefits from the existence of marine animals in the wild and their ocean habitat. The Center brings this action on behalf of itself and its members.

19. The Center and its members' interests are harmed by EPA's failure to identify impaired waters in Oregon and finalize the list of such waters. The Center and its members' injuries are directly traceable to EPA's failure to identify impaired waters in Oregon and finalize the list of such waters. States must identify impaired water bodies – those failing to meet water quality standards – and establish limits on pollutants causing their impairment. If a state fails to list an impaired water body, EPA must reject the state's list and identify impaired waters on its own. Marine waters in Oregon do not meet state water quality standards, and therefore when Oregon failed to identify waters impaired by ocean acidification, EPA was required to

disapprove Oregon's list and identify those waters as impaired. Once a water body is identified as impaired, either the state or EPA must set total maximum daily load of pollutants that will ensure the protection of water quality. As a result of EPA's failure to finalize approval of Oregon's impaired waters lists, there has been a continued influx of pollutants that are harming marine wildlife and ecosystems. EPA's failure to complete its mandatory rulemaking and finalize Oregon's 303(d) list inhibits the protection of water quality and denies important pollution regulations for water bodies and marine species, and decreases the Center's members' ability to use, research, view, and enjoy affected marine species and habitats.

20. The Center and its members are also suffering procedural and informational injuries resulting from EPA's failure to finalize Oregon's list of impaired waters, including those waters impaired by ocean acidification. With no final 303(d) list, the State of Oregon will fail to establish total maximum daily loads and take other actions as required by the Clean Water Act. EPA regulations make it clear that impaired water listings and total maximum daily loads shall be developed with public participation. Due to EPA's violations of law, the Center and its members are deprived of informational and procedural benefits that would aid them in their activities to conserve ocean wildlife and habitat.

21. The Center and its members' injuries can be redressed by the declaratory and injunctive relief sought herein. An order compelling EPA to finalize Oregon's impaired waters lists and add water bodies not attaining water quality standards due to ocean acidification will be more protective of water quality. Listing triggers a duty for Oregon or the EPA to develop total maximum daily loads necessary to attain applicable water quality standards, which are incorporated into water quality management plans. The addition of waters impaired by ocean acidification to Oregon's impaired list would also result in increased monitoring and

management of those waters as well as benefits from educating the public and policymakers about ocean acidification. Listing would focus funding, research, and management on those areas that are vulnerable to ocean acidification. Therefore, a final list, which may include waters impaired by ocean acidification, will likely improve ocean water quality, and increase and improve the Center's members' opportunities to use and enjoy marine waters and species of Oregon.

22. Defendant United States Environmental Protection Agency is the federal agency charged with the implementation of the Clean Water Act. EPA has the duty, authority, and ability to remedy the injuries alleged in this complaint.

23. Defendant Andrew Wheeler is the Acting Administrator of EPA and is sued in his official capacity. As Acting Administrator of EPA, he is responsible for the agency's implementation of the Clean Water Act. Acting Administrator Wheeler has the ultimate duty, authority, and ability to remedy the injuries alleged in this complaint.

24. Defendant Chris Hladick is the Administrator of Region 10 of EPA and is sued in his official capacity. EPA Region 10's jurisdiction covers the Pacific Northwest of the United States, including Oregon and its ocean waters that are harmed by EPA's unlawful actions and inactions. Administrator Hladick is responsible for EPA's implementation of the Clean Water Act within Region 10, including ocean waters in Oregon. The Regional Administrator has the duty, authority, and ability to remedy the injuries alleged in this complaint.

LEGAL BACKGROUND

The Clean Water Act

25. Congress enacted the Clean Water Act, 33 U.S.C. §§ 1251 *et seq*., with the express purpose "to restore and maintain the chemical, physical, and biological integrity of the

Nation's waters." 33 U.S.C. § 1251(a). One of the Act's goals is to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water . . . ." *Id.*

26. To meet the Act's goals, each state must establish water quality standards that protect specific uses of waterways within the state's boundaries. *Id.* § 1313(a)–(c); 40 C.F.R. § 130.3. To do so, a state first designates the use or uses of a particular body of water, *see* 40 C.F.R. § 131.10, and then designates water quality criteria necessary to protect their designated uses. *Id.* § 131.11.

27. These water quality standards include numeric criteria, narrative criteria, water body uses, and antidegradation requirements and should "provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation . . . ." 40 C.F.R. § 130.3.

28. Section 303(d) of the Act requires states to establish a list of impaired water bodies within their boundaries for which existing pollution controls "are not stringent enough" to ensure "any water quality standard applicable" will be met. 33 U.S.C. § 1313(d)(1)(A). This list is often referred to as a state's "303(d) list" or list of "impaired waters."

29. The state's 303(d) list must include all water bodies that fail to meet "any water quality standard," including "numeric criteria, narrative criteria, water body uses, and antidegradation requirements." 40 C.F.R. § 130.7(b)(1), (3). The list must also include waters that are threatened, defined as waters currently attaining water quality standards but are not expected to meet applicable water quality standards before the next listing cycle. *Id.* § 130.7(b)(5)(iv); EPA, *Guidance for 2006 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d), 305(b) and 314 of the Clean Water Act* (2005).

30. Once a state develops its 303(d), or impaired waters, list, the state must submit the list to EPA, and EPA must approve, disapprove, or partially disapprove the list within thirty days. 33 U.S.C. § 1313(d)(2). If EPA does not approve a state's 303(d) list, the Administrator "shall not later than thirty days after the date of such disapproval identify such waters" in the state that should have been listed as impaired. *Id.*; 40 C.F.R. § 130.7(d)(2). The Regional Administrator must "promptly issue a public notice comment" on the identified impaired waters, and transmit the list of impaired waters to the state, and "the State shall incorporate them into its current plan . . . ." 40 C.F.R. § 130.7(d)(2); 33 U.S.C. § 1313(d)(2).

31. Once a water body is listed as impaired pursuant to Clean Water Act Section 303(d), the state has the authority and duty to control pollutants from all sources that are causing the impairment. Specifically, the state or EPA must establish total maximum daily loads of pollutants that a water body can receive and still attain water quality standards. 33 U.S.C. § 1313(d). States then implement the maximum loads by incorporating them into the state's water quality management plan and controlling pollution from point and nonpoint sources. 33 U.S.C. § 1313(e); 40 C.F.R. §§ 130.6, 130.7(d)(2). The goal of Section 303(d) is to ensure that our nation's waters attain water quality standards whatever the source of the pollution.

32. EPA has long-acknowledged that, as a result of absorbing large quantities of human-made carbon dioxide emissions, ocean chemistry is changing, and this is likely to negatively affect marine ecosystems and species including coral reefs, shellfish, and fisheries. EPA also has acknowledged the Clean Water Act and its 303(d) program can and must be used to address the water quality problem of ocean acidification. EPA guidance directs states to include waters threatened or impaired by ocean acidification in their 303(d) lists of impaired water bodies and to solicit data and information on ocean acidification.

33. Section 505 of the Clean Water Act authorizes citizens to bring a civil action against the Administrator "where there is alleged a failure of the Administrator to perform any act or duty . . . which is not discretionary with the Administrator." 33 U.S.C. § 1365(a)(2).

The Administrative Procedure Act

34. The Administrative Procedure Act allows for judicial review of agency actions. 5 U.S.C. § 702. Agency action includes an agency's failure to act. *Id*. § 551(13).

35. The Administrative Procedure Act allows a reviewing court to "compel agency action unlawfully withheld or unreasonably delayed. *Id*. § 706(1).

FACTUAL BACKGROUND

Ocean Acidification

36. When carbon dioxide is released into the atmosphere, the oceans absorb a portion of those emissions. Carbon dioxide absorption by the ocean alters seawater chemistry, causing ocean waters to become more acidic and the pH to decline. This process, termed "ocean acidification," represents one of the greatest threats to ocean ecosystems in the United States and throughout the world.

37. The oceans have absorbed approximately thirty percent of the carbon dioxide released into the atmosphere by human activities, contributed largely from fossil fuel use and land-use changes such as deforestation. At present, the atmospheric carbon dioxide concentration is over 400 parts per million and continues to rise over two parts per million per year. The ocean will continue to absorb carbon dioxide until it reaches equilibrium with the atmosphere.

38. Globally, human sources of carbon dioxide have changed the pH of oceans an average of 0.11 units since the Industrial Revolution – a thirty percent increase in acidity. By the

end of the century, the pH of the world's oceans is predicted to drop by another 0.3 to 0.5 units, amounting to a 100 to 150 percent increase in acidity.

39. Regional factors, such as nutrient runoff and algal blooms, combine with high carbon dioxide waters to influence ocean acidification in the coastal waters off Oregon. Nutrient runoff and algal blooms can result from anthropogenic causes, and human sources are a major contributor to nutrient loads on the Oregon coast.

40. Oregon coastal waters are especially vulnerable to ocean acidification. Ocean acidification is affecting coastal waters at rates and magnitudes greater than scientists had previously estimated. Ocean acidification is already at levels that were not predicted until the end of the century. The entire West Coast is currently experiencing an upwelling of "corrosive acidified" waters onto the continental shelf, exposing shellfish and plankton in surface waters to corrosive conditions. Scientific studies have shown that these levels can have adverse effects on marine animals.

41. Ocean acidification poses a threat to marine animals and ecosystems. Ocean acidification impairs the ability of marine animals to build the shells and skeletons required for their survival. When carbon dioxide concentrations in seawater increase, the availability of carbonate ions decreases, making it more difficult for marine organisms to form, build, and maintain calcium carbonate shells and other calcium carbonate-based body parts. As a result of ocean acidification, calcifying marine plants and animals experience greater difficulty in making or maintaining their shells, slower growth rates, and higher mortality.

42. Numerous lab and field studies have shown impacts to shellfish from corrosive conditions. Mollusks, such as mussels, clams, and oysters, have been shown to be sensitive to ocean acidification, and both early life stages and adults have shown reduced calcification,

growth, and survival when exposed to corrosive conditions. (e.g., aragonite saturation less than 1). Laboratory studies have shown that oyster larvae experience conditions detrimental to their development and growth at an aragonite saturation level of 1.5 and below. Laboratory studies have also demonstrated impacts on the early stages of Dungeness crabs, including delays in hatching and significantly reduced larvae survival at lower pH levels. Further, mollusk shell dissolution increases as aragonite saturation state decreases. Some of the conditions simulated in these studies have been recorded off the coast of Oregon, as well as in Oregon state waters.

43. EPA reviewed National Oceanic and Atmospheric Administration data and found it demonstrated an aragonite saturation state of less than 1, which is corrosive to pteropods, in 73 percent of observations in Oregon state waters. In 2014, a study was published on the shell dissolution of pteropods (small pelagic snails that make up an important part of the oceanic food web), off the coast of Washington, Oregon, and California. In Oregon, the pteropod samples were collected at stations outside Oregon's state coastal waters. The stations located closest to shore exhibited the highest proportion of signs of dissolution.

44. The 2014 study found that 24 percent of offshore pteropods and 53 percent of onshore pteropods had severe damage from acidic waters dissolving their shells. The authors estimated that the incidence of severe pteropod shell dissolution owing to anthropogenic ocean acidification has doubled since pre-industrial times in near shore habitats across the study area, and is on track to triple by 2050.

45. Coastal upwelling zones, located to shore, may be more vulnerable to enhanced acidification. Upwelling causes low aragonite saturation state waters to be forced to the surface, while the aragonite saturation state is further suppressed by anthropogenic carbon dioxide and freshwater inputs.

46. Ocean acidification also harms larvae of bivalves such as oysters and mussels. Saturation state effects on shell formation carry over into later life stages, where pH or carbon dioxide effects can further exacerbate initial ocean acidification effects. Laboratory studies demonstrating increased shell dissolution in the presence of aragonite saturation states less than 1, present in Oregon state waters, indicates impairments of aquatic life within Oregon waters.

Oregon's 2012 303(d) List

47. On June 10, 2009, Plaintiff submitted comments and scientific information requesting the Oregon Department of Environmental Quality ("DEQ") to identify coastal waters as impaired due to ocean acidification on Oregon's 303(d) list.

48. On December 6, 2010, May 2, 2011, April 18, 2012, and June 20, 2012, Plaintiff submitted additional information and comments on ocean acidification and its impact on Oregon's marine waters.

49. In 2014, Plaintiff submitted additional information and comments on ocean acidification and its impact on Oregon's marine waters in response to DEQ's draft integrated report.

50. On information and belief, federal and other scientists provided data and information to the State of Oregon on ocean acidification along the Oregon coast and its impact on aquatic life for its 2012 water quality assessment.

51. On November 5, 2014, DEQ submitted Oregon's 2012 Section 303(d) list of impaired waters to EPA. This list did not include marine waters impaired due to ocean acidification.

52. On December 21, 2016, EPA partially approved and partially disapproved Oregon's 2012 303(d) list. EPA disapproved DEQ's submittal for the removal of eight water

quality limited segments and for failing to list 332 impaired water bodies. EPA proposed to add these 332 segments to Oregon's 2012 303(d) list because the segments did not attain water quality standards.

53. In its partial disapproval, EPA solicited data and information on ocean acidification impairments of Oregon marine waters. EPA described that numerous lab and field studies showed impacts to shellfish and pteropods under corrosive conditions, and acknowledged that data showed corrosive conditions off the Oregon coast. EPA acknowledged that the scientific information showed that aquatic life impairments occur at aragonite saturation states of less than 1.0, and that such conditions occur in Oregon state waters. EPA stated it would act on marine waters impaired by ocean acidification once it considered the public comments.

54. On April 3, 2017, the Center submitted a public comment to EPA containing data and information on ocean acidification impacts in Oregon's marine waters. Plaintiff urged EPA to list several water bodies as threatened or impaired due to ocean acidification under its 303(d) list, and to obtain all readily available data on ocean acidification from the sources identified in the comment and analyze them for its water quality assessment.

55. EPA has not yet identified Oregon's marine waters impaired by ocean acidification.

56. EPA has not yet finalized its rulemaking adding any additional impaired waters to Oregon's 2012 303(d) list, including the 332 impaired waters it proposed or any waters threatened or impaired by ocean acidification.

CLAIMS FOR RELIEF

(Violations of the Clean Water Act and Administrative Procedure Act)

57. Plaintiff realleges and incorporates by reference all the allegations set forth in this

Complaint.

58. EPA's failure to identify Oregon's threatened and impaired waters and finalize its rulemaking adding any additional impaired waters, including those impaired due to ocean acidification, to Oregon's 2012 303(d) list within thirty days of EPA's partial disapproval violates the Clean Water Act Section 303(d)(2), 33 U.S.C. § 1313(d)(2) and 40 C.F.R. § 130.7(d)(2), and/or constitutes agency action unlawfully withheld or unreasonable delayed in violation of the Administrative Procedure Act, 5 U.S.C. § 706(1).

REQUEST FOR RELIEF

For the reasons listed above, Plaintiff respectively requests that the Court grant the following relief:

1. A declaration that EPA's failure to identify threatened and impaired waters and finalize its rulemaking adding additional impaired waters, including those impaired due to ocean acidification, within thirty days after its partial disapproval of Oregon's 2012 303(d) list, violated, and continues to violate, EPA's mandatory duties under Section 303(d)(2) of the Clean Water Act, 33 U.S.C. § 1313(d)(2) and 40 C.F.R. § 130.7(d)(2), and/or constitutes agency action unlawfully withheld or unreasonable delayed under the Administrative Procedure Act, 5 U.S.C. § 706(1);

2. An order compelling EPA to identify and finalize its rulemaking to add additional impaired waters, including those impaired due to ocean acidification, within thirty days to Oregon's 2012 303(d) list;

3. Award Plaintiff its costs of litigation, including reasonable attorneys' fees as authorized by Section 505(d) of the Clean Water Act, 33 U.S.C. § 1365(d), and/or the Equal Access to Justice Act, 28 U.S.C. § 2412; and

4. Grant Plaintiff such other relief as the Court deems just and proper.

Respectfully submitted this 27th day of November, 2018.

s/Kristen Monsell

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